AUG 31 2004
PATENT & TRADEMARK OFFICE

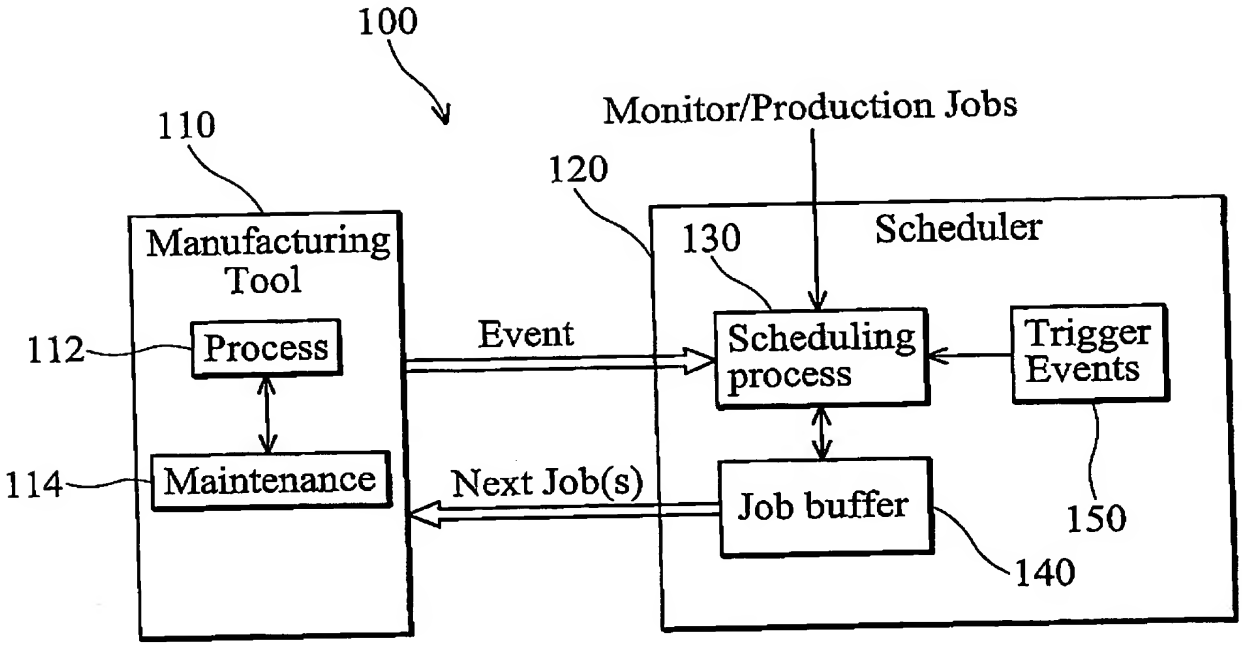


FIG. 1

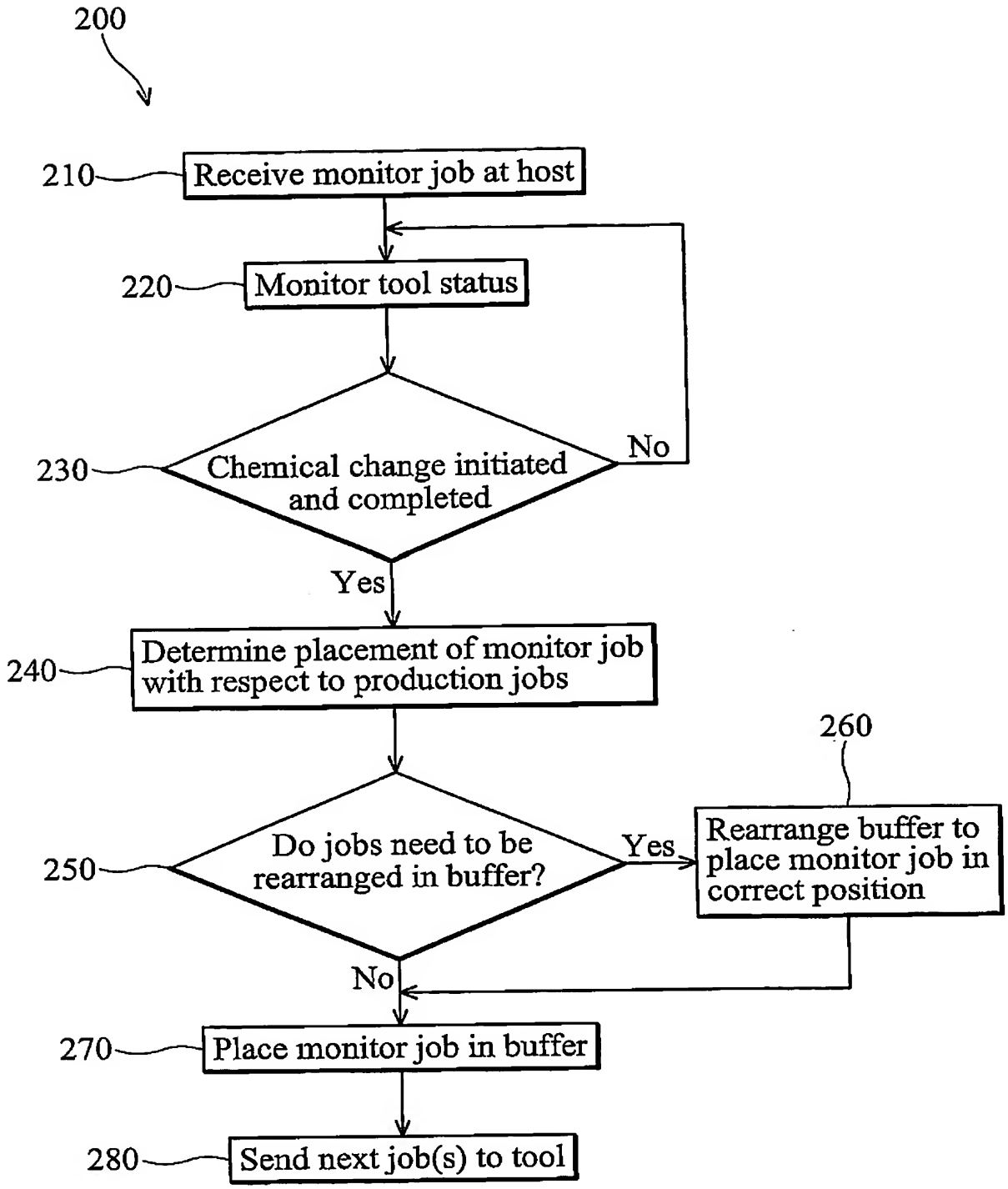

200
210
Receive monitor job at host
220
Monitor tool status
230
Chemical change initiated and completed
No
Yes
240
Determine placement of monitor job with respect to production jobs
260
250
Do jobs need to be rearranged in buffer?
Yes
Rearrange buffer to place monitor job in correct position
No
270
Place monitor job in buffer
280
Send next job(s) to tool

FIG. 2

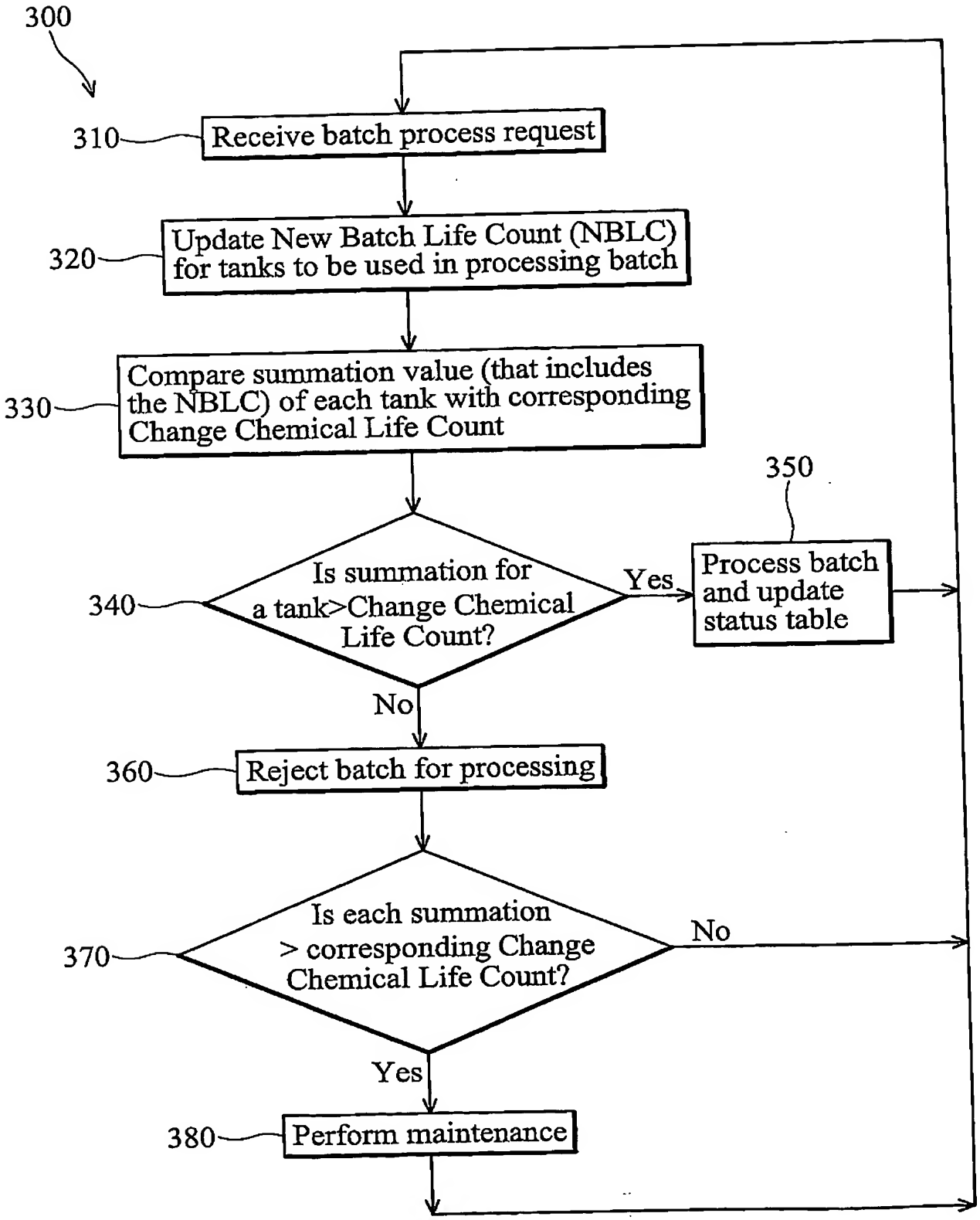
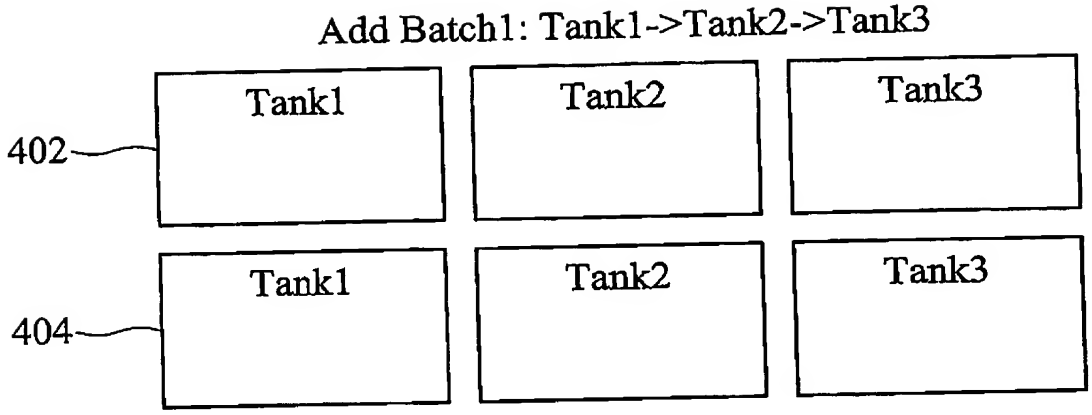

300
310
Receive batch process request
320
Update New Batch Life Count (NBLC) for tanks to be used in processing batch
330
Compare summation value (that includes the NBLC) of each tank with corresponding Change Chemical Life Count
340
Is summation for a tank>Change Chemical Life Count?
Yes
350
Process batch and update status table
No
360
Reject batch for processing
370
Is each summation > corresponding Change Chemical Life Count?
No
Yes
380
Perform maintenance

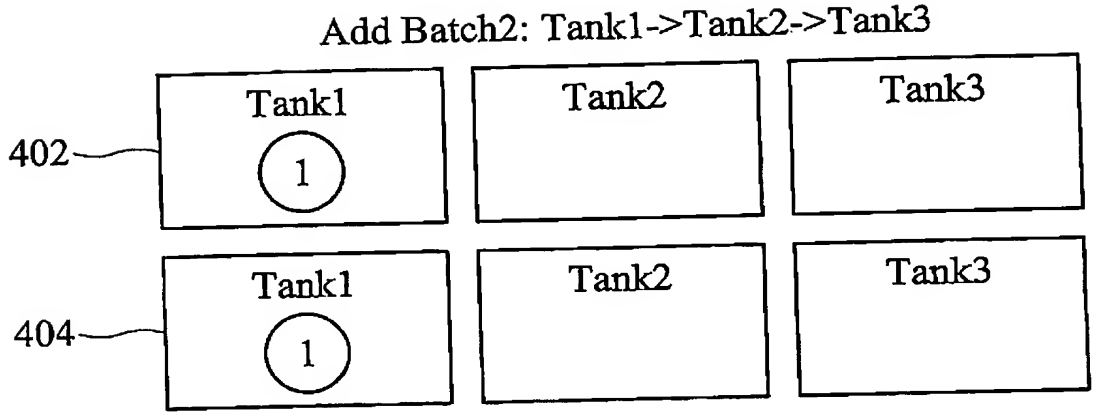
FIG. 3



406

	Tank1	Tank2	Tank3
408 Life Count	0	0	1
410 History Life Count	0	0	0
412 Batch Level Life Count (LC-HLC)	0	0	1
414 Processing Batch Life Count	0	0	0
416 Waiting Batch Life Count	0	0	0
418 New Batch Life Count	1	1	1
420 BLLC+PBLC+WBLC+NBLC	1	1	2
422 Change Chemical Life Count	3	3	3

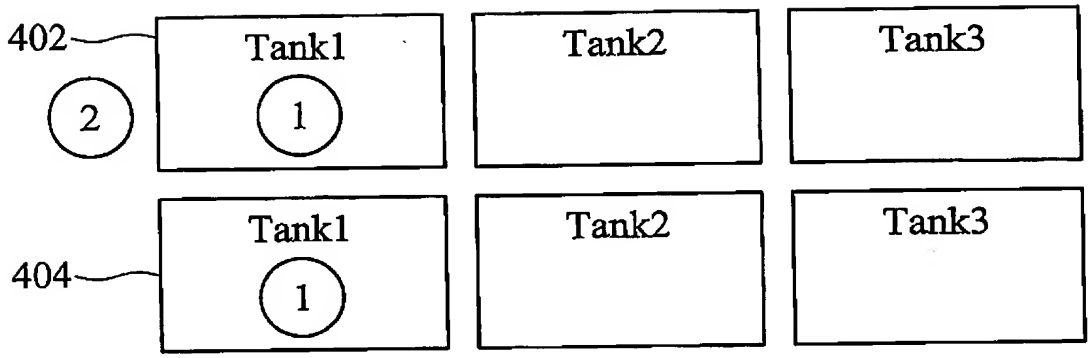
FIG. 4a



406

	Tank1	Tank2	Tank3
408 Life Count	1	0	1
410 History Life Count	1	0	0
412 Batch Level Life Count (LC-HLC)	0	0	1
414 Processing Batch Life Count	1	1	1
416 Waiting Batch Life Count	0	0	0
418 New Batch Life Count	1	1	1
420 BLLC+PBLC+WBLC+NBLC	2	2	3
422 Change Chemical Life Count	3	3	3

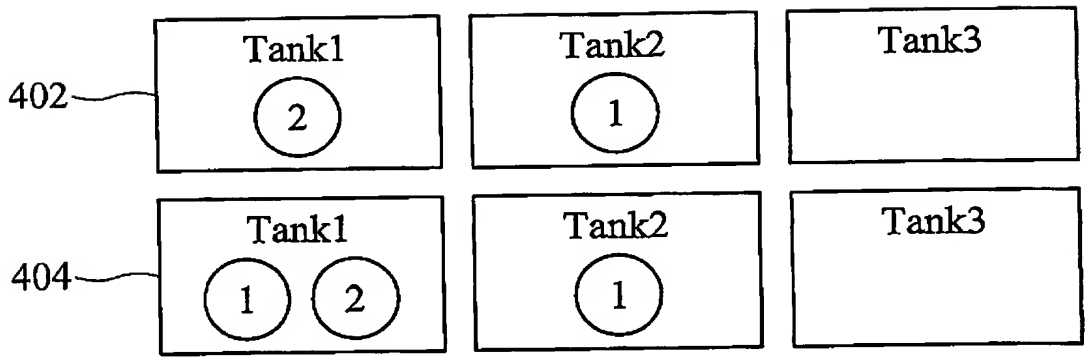
FIG. 4b



406

	Tank1	Tank2	Tank3
408 Life Count	1	0	1
410 History Life Count	1	0	0
412 Batch Level Life Count (LC-HLC)	0	0	1
414 Processing Batch Life Count	1	1	1
416 Waiting Batch Life Count	1	1	1
418 New Batch Life Count	0	0	0
420 BLLC+PBLC+WBLC+NBLC	2	2	3
422 Change Chemical Life Count	3	3	3

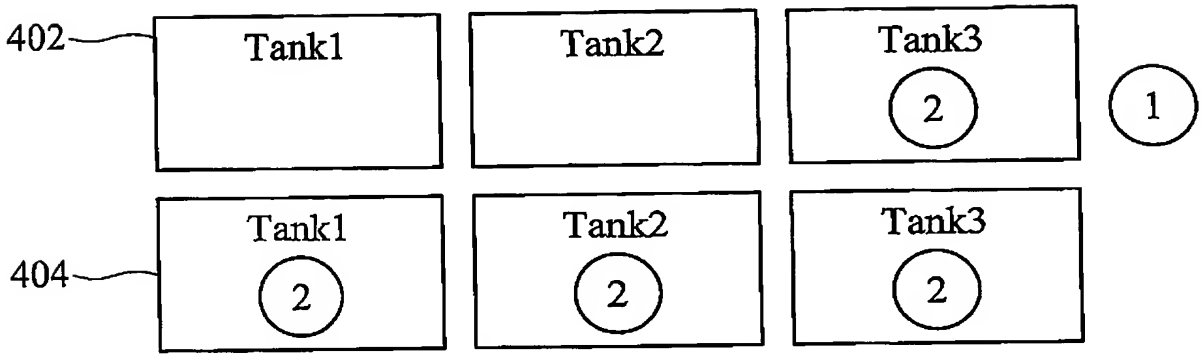
FIG. 4c



406		Tank1	Tank2	Tank3
408	Life Count	2	1	1
410	History Life Count	2	1	0
412	Batch Level Life Count (LC-HLC)	0	0	1
414	Processing Batch Life Count	2	2	2
416	Waiting Batch Life Count	0	0	0
418	New Batch Life Count	0	0	0
420	BLLC+PBLC+WBLC+NBLC	2	2	3
422	Change Chemical Life Count	3	3	3

FIG. 4d

Add Batch3: Tank1->Tank3

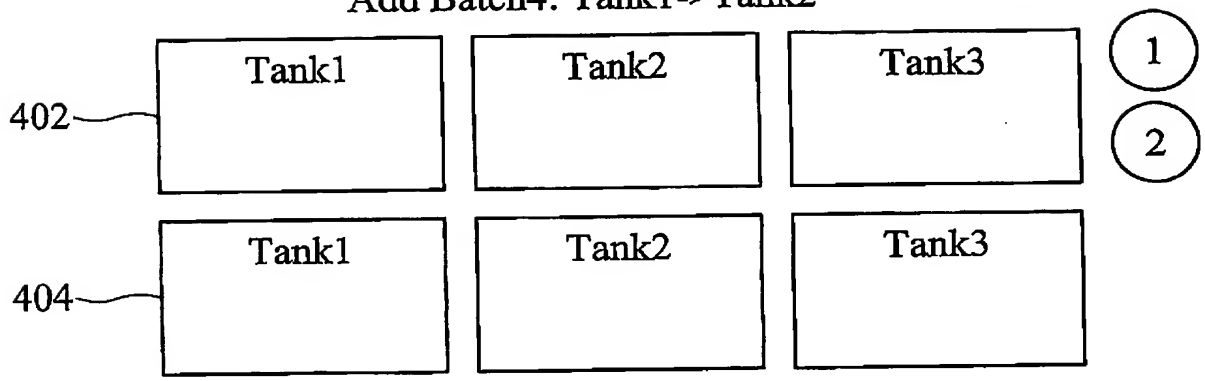


406

	Tank1	Tank2	Tank3
408 Life Count	2	2	3
410 History Life Count	1	1	1
412 Batch Level Life Count (LC-HLC)	1	1	2
414 Processing Batch Life Count	1	1	1
416 Waiting Batch Life Count	0	0	0
418 New Batch Life Count	1	0	1
420 BLLC+PBLC+WBLC+NBLC	3	2	4
422 Change Chemical Life Count	3	3	3

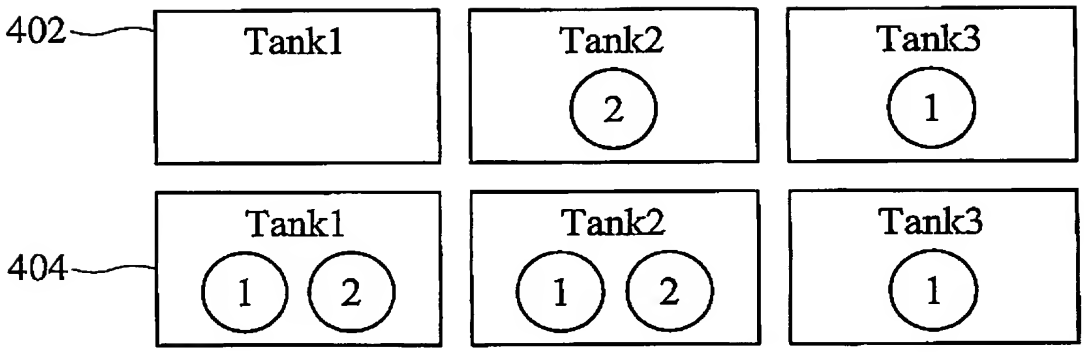
FIG. 4e

Add Batch4: Tank1->Tank2



406		Tank1	Tank2	Tank3
408	Life Count	2	2	3
410	History Life Count	0	0	0
412	Batch Level Life Count (LC-HLC)	2	2	3
414	Processing Batch Life Count	0	0	0
416	Waiting Batch Life Count	0	0	0
418	New Batch Life Count	1	1	0
420	BLLC+PBLC+WBLC+NBLC	3	3	3
422	Change Chemical Life Count	3	3	3

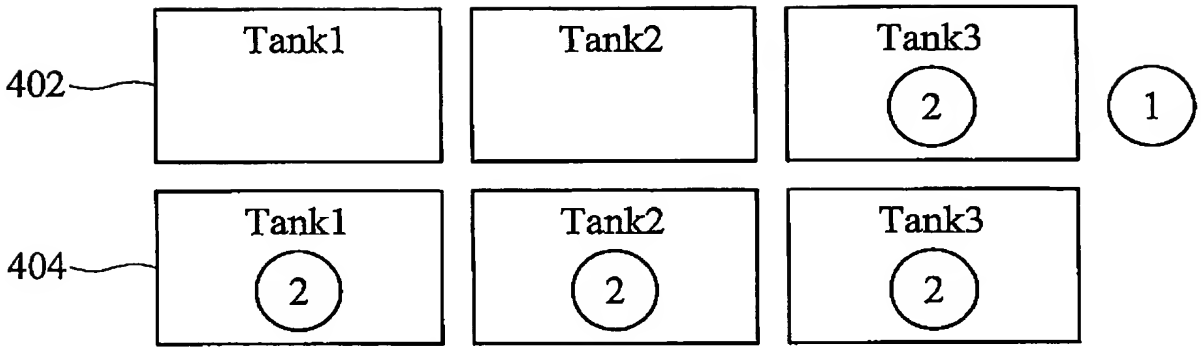
FIG. 4f



406

	Tank1	Tank2	Tank3
408 Life Count	2	2	2
410 History Life Count	2	2	1
412 Batch Level Life Count (LC-HLC)	0	0	1
414 Processing Batch Life Count	2	2	2
416 Waiting Batch Life Count	0	0	0
418 New Batch Life Count	0	0	0
420 BLLC+PBLC+WBLC+NBLC	2	2	3
422 Change Chemical Life Count	3	3	3

FIG. 4g



406		Tank1	Tank2	Tank3
408	Life Count	2	2	3
410	History Life Count	1	1	1
412	Batch Level Life Count (LC-HLC)	1	1	2
414	Processing Batch Life Count	1	1	1
416	Waiting Batch Life Count	0	0	0
418	New Batch Life Count	0	0	0
420	BLLC+PBLC+WBLC+NBLC	2	2	3
422	Change Chemical Life Count	3	3	3

FIG. 4h